Application No.: 10/534,351 Amendment under 37 C.F.R. §1.116
Art Unit: 1796 Attorney Docket No.: 052512

## **AMENDMENTS TO THE CLAIMS**

## Listing of claims:

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently amended): A liquid cleaner for a semiconductor substrate on which metal wiring may be provided, comprising consisting of each component of a) a chelating agent or a salt thereof shown by the following general formula (1), a hydroxide of an alkaline metal and pure water, or b) a chelating agent or a salt thereof shown by the following general formula (1), a hydroxide of an alkaline metal, pure water and a buffering agent, wherein pH is 8 to 13

$$\begin{array}{c|c}
R^{1} & & \\
R^{2} & & \\
R^{2} & & \\
R^{5} & & \\
\end{array}$$
(1)

(wherein,  $Y^1$  and  $Y^2$  are lower alkylene groups, n is an integer of 0 to 4, at least 4 of  $R^1$  to  $R^4$  and n  $R^5$ s are alkyl groups having phosphonic acid group(s) and the rest are alkyl groups).

2. (Original): The liquid cleaner according to claim 1, wherein,  $Y^1$  and  $Y^2$  in the chelating agent shown by the general formula (1) are alkylene groups having 1 to 4 carbon atoms and alkyl groups in alkyl groups which may have phosphonic acid group(s) relevant to  $R^1$  to  $R^4$  and n  $R^5$ s are alkyl groups having 1 to 4 carbon atoms.

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3. (Original): The liquid cleaner according to claim 1, wherein the chelating agent or a salt

thereof is at least one kind selected from the group consisting of

ethylenediaminetetraethylenephosphonic acid, ethylenediaminetetraethylenephosphonic acid

ammonium salt, ethylenediaminetetraethylenephosphonic acid potassium salt,

ethylenediaminetetraethylenephosphonic acid sodium salt,

ethylenediaminetetraethylenephosphonic acid lithium salt,

ethylenediaminetetramethylenephosphonic acid, ethylenediaminetetramethylenephosphonic acid

ammonium salt, ethylenediaminetetramethylenephosphonic acid potassium salt,

ethylenediaminetetramethylenephosphonic acid sodium salt,

ethylenediaminetetramethylenephosphonic acid lithium salt,

diethylenetriaminepentaethylenephosphonic acid, diethylenetriaminepentamethylenephosphonic

acid, diethylenetriaminepentamethylenephosphonic acid ammonium salt,

diethylenetriaminepentamethylenephosphonic acid potassium salt,

diethylenetriaminepentamethylenephosphonic acid sodium salt,

diethylenetriaminepentamethylenephosphonic acid lithium salt,

triethylenetetraminehexaethylenephosphonic acid, triethylenetetraminehexamethylenephosphonic

acid, triethylenetetraminehexamethylenephosphonic acid ammonium salt,

triethylenetetraminehexamethylenephosphonic acid potassium salt,

triethylenetetraminehexamethylenephosphonic acid sodium salt,

triethylenetetraminehexamethylenephosphonic acid lithium salt,

propanediaminetetraethylenephosphonic acid, propanediaminetetramethylenephosphonic acid,

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propanediaminetetramethylenephosphonic acid ammonium salt, propanediaminetetramethylenephosphonic acid potassium salt, propanediaminetetramethylenephosphonic acid sodium salt and propanediaminetetramethylenephosphonic acid lithium salt.

## 4-5. (Cancelled)

- 6. (Currently Amended): The liquid cleaner according to claim [[5]] 1, wherein the buffering agent is one selected from boric acid and a good's buffer.
- 7. (Currently Amended): A method for cleaning a semiconductor substrate, which comprises the semiconductor substrate, on which metal wiring may be provided, is cleaned with a liquid cleaner of claim 1 comprising each component of a) a chelating agent or a salt thereof shown by the following general formula (1), a hydroxide of an alkaline metal and pure water, or b) a chelating agent or a salt thereof shown by the following general formula (1), a hydroxide of an alkaline metal, pure water and a buffering agent, wherein pH is 8 to 13

(wherein, Y<sup>1</sup> and Y<sup>2</sup> are lower alkylene groups, n is an integer of 0 to 4, at least 4 of R<sup>1</sup> to R<sup>4</sup> and n R<sup>5</sup>s are alkyl groups having phosphonic acid group(s) and the rest are alkyl groups).

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8. (Previously Presented): The liquid cleaner according to claim 1, wherein the hydroxide of the

alkaline metal is at least one selected from the group consisting of potassium hydroxide, sodium

hydroxide and lithium hydroxide.

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